

**Dust Control Plan**  
**For**  
**Navajo Generating Station**

**Pursuant to the  
Source-Specific  
Federal Implementation Plan  
40 CFR Part 49**

**Prepared By:  
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## 1.0 INTRODUCTION AND PURPOSE

Salt River Project's (SRP's) Navajo Generating Station (NGS) facility is committed to responsible and sustainable stewardship of the environment; and compliance with the requirements of the United States Environmental Protection Agency's (EPA's) Federal Implementation Plan (FIP) for NGS, recorded in the Federal Register under 40 CFR Part 49. This Dust Control Plan (DCP) describes methods and procedures to minimize emissions from point and non-point dust sources and maintain compliance with the FIP.

FIP conditions in 40 CFR Part 49 §49.24(d)(3) specify that:

*"Each owner or operator shall operate and maintain the existing dust suppression methods for controlling dust from the coal handling and storage facilities. Within 90 days after promulgation of these regulations the owner or operator shall submit to the Regional Administrator a description of the dust suppression methods for controlling dust from the coal handling and storage facilities, fly ash handling and storage, and road sweeping activities. Each owner or operator shall not emit dust with opacity greater than 20% from any crusher, grinding mill, screening operation, belt conveyor, truck loading or unloading operation, or railcar unloading station."*

## 2.0 FACILITY DETAILS

NGS is a participant owned generating plant managed by SRP. NGS is located on leased land 5 miles southeast of Page Arizona at 4365 feet (elevation). The participants are U.S. Bureau of Reclamation (24.3% ownership), Los Angeles Department of Water and Power (21.2%), Salt River Project (21.7%), Arizona Public Service (14.0%), Nevada Power (11.3%) and Tucson Electric Power Co. (7.5%). NGS is a three-unit coal fired power plant (supercritical design tangentially-fired boilers) generating 2250 net megawatts of power.

Bituminous coal is mined by Peabody Energy at the Black Mesa Mine Complex and delivered by electric rail to NGS. Coal is then transferred via enclosed conveyor systems for burning in the boilers or stacked out to a storage pile for later use.

The management of coal combustion residues and the delivery of limestone for the SO<sub>2</sub> scrubbers is contracted to a third party entity but SRP remains the responsible party for truck loading and unloading operations, material transfer, storage, and disposal activities. Coal combustion residues include flyash, bottom ash, and scrubber byproducts. Bottom ash and scrubber byproducts are handled in a wet state which minimizes the potential for dust emissions and these materials are not addressed in the FIP and in this document.

## 3.0 GEOGRAPHY AND CLIMATE

NGS is located in an arid desert environment receiving an annual average of seven and half inches of precipitation. The surrounding geologic formations include outcroppings of the Carmel formation, Page Sandstone, and Navajo Sandstone. Weathering of these formations have created substrates of unconsolidated aeolian sands and partially stabilized dune deposits with sparse vegetation.

## 4.0 DUST SUPPRESSION METHODS

The FIP requires in 40 CFR Part 49 §49.24(d)(3) a description of the dust suppression methods for coal handling and storage facilities, fly ash handling and storage, and road sweeping activities.

The tables contained in this section outline preventive and mitigating control measures as guidelines to minimize dust emissions from paved and unpaved roads, storage piles, and the material handling related to coal, fly ash, and limestone.

### 4.1 Roadways

Dust emissions from roadways are mitigated using control measures outlined below. Main trafficked areas are sprayed with water daily (weather permitted) and speed limits are observed. During winter months, ice formation may preclude water spraying due to safety consideration.

Roadway Non-Point Sources: One or more of the following control measures will be implemented to minimize dust emissions from roadway sources.

**TABLE 1.0 Control Measure Guidelines:**

<b>Source:</b>	<b>Roadway Dust Control Measures</b>
<b>Paved Roads: Traffic Activity</b>	<ol style="list-style-type: none"><li>1. Water spray roads</li><li>2. Speed reduction</li><li>3. Limit Traffic</li><li>4. Sweeping of roads</li></ol>
<b>Unpaved Roads: Traffic Activity</b>	<ol style="list-style-type: none"><li>1. Water spray roads</li><li>2. Speed reduction</li><li>3. Limit traffic</li><li>4. Gravel surface</li><li>5. Chemical stabilization</li></ol>
<b>Carryout</b>	<ol style="list-style-type: none"><li>1. Clean vehicles before entering roadway</li><li>2. Pave access road near plant site exit</li><li>3. Rapid cleanup after spill events</li></ol>

Monitor: Verify control measures weekly.

## 4.2 Material Storage

**Table 2.0 Control Measure Guidelines:**

<b>Material Storage</b>	
Control techniques applicable to outdoor material storage piles fall into distinct categories as related to handling operations (including traffic around piles) and mitigating wind erosion. In both cases, the control can be achieved by implementing one or more of the following strategies: (a) source extent reduction, (b) source improvement related to work practices and transfer equipment (load-in and load-out operations), and (c) surface treatments.	
	<b>Material Disturbance and Wind Erosion Control Measures:</b>
Source control	<ol style="list-style-type: none"> <li>1. Minimize exposed surface area</li> <li>2. Minimize surface disturbances and material handling</li> </ol>
Source improvement	<ol style="list-style-type: none"> <li>1. Reduce drop height when handling material</li> <li>2. Maintain moisture and crust, as applicable</li> <li>3. Shelter from wind, as applicable</li> </ol>
Surface treatment	<ol style="list-style-type: none"> <li>1. Water Spraying, as applicable</li> <li>2. Chemical stabilization</li> </ol>

Monitor: Verify control measures weekly.

## 4.3 Coal Handling

SRP's responsibilities extend to all aspects of coal handling and storage; this includes implementing dust control measures for the following:

Coal Handling Non-Point Sources: One or more of the following control measures will be implemented by NGS to minimize dust emissions from the potential sources listed below:

**TABLE 3.0 Control Measure Guidelines:**

<b>Source: (Unit ID)</b>	<b>Material Handling Control Measures</b>
<b>Material Handling: (CT1)</b> Railroad car unloading operations	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> <li>2. Reduce drop height – minimum hopper level maintained</li> <li>3. Watering spraying, as applicable</li> </ol>
<b>(L1-L12)</b> Twelve hopper feeders	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> <li>2. Water spraying, as applicable</li> <li>3. Chemical stabilization</li> </ol>
<b>(BC-1)</b> Belt Conveyor	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> <li>2. Water spraying, as applicable</li> <li>3. Chemical stabilization</li> </ol>
<b>(BC-2)</b>	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> <li>2. Maintain moisture</li> </ol>
<b>(BC-3)</b>	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> <li>2. Maintain moisture</li> </ol>
<b>(BC-4)</b>	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> <li>2. Maintain moisture</li> </ol>
<b>(BC-4A)</b>	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> <li>2. Maintain moisture</li> </ol>
<b>(BFD-5A)</b>	<ol style="list-style-type: none"> <li>1. Shelter from wind - enclosure</li> </ol>

<b>Belt Feeder Deck</b>	2. Maintain moisture
<b>(BC-5)</b>	1. Shelter from wind - enclosure 2. Maintain moisture
<b>(BC-6A)</b> 1 of 3 stacker / reclaimer reversible conveyers	1. Shelter from wind - enclosure 2. Water spraying, as applicable 3. Chemical stabilization
<b>(BC-6B)</b> 2 of 3 stacker conveyer only	1. Shelter from wind - enclosure 2. Maintain moisture
<b>(BC-6C)</b> 3 of 3 stacker / reclaimer reversible conveyers	1. Shelter from wind - enclosure
<b>(BC-6)</b>	1. Shelter from wind - enclosure 2. Water spraying, as applicable 3. Chemical stabilization
<b>(BC-7)</b> One conveyor to the emergency reclaim hopper	1. Shelter from wind - enclosure 2. Water spraying, as applicable 3. Chemical stabilization
<b>Wind Erosion: (CS) Outdoor coal storage piles</b>	1. Maintain moisture 2. Water spraying, as applicable 3. Chemical stabilization

Monitor: Verify control measures weekly.

Coal Handling Point Sources: The potential sources listed in Table 4.0 utilize particulate control devices to control emissions.

**TABLE 4.0 Emission Control Devices:**

Unit ID / Stack ID:	Control Device	Make / Size	Stack Details
YSB-1	DC-8 (Sample Bldg – 100 feet elevation)	Peabody_Lugar LT (Air Flow 20,000 acfm)	Exit opening facing eastward on east side of EF-8. Opening: 1.5 feet by 2 feet
BC-8A & BC-8B			
PSB-1	DE-5 (Cascade Enclosure - 135 feet elevation)	SIEMENS Dust Eliminator System	Exit opening is inside building facing up. Opening: 3 feet by 3 feet
BC-9A & BC-9B			
BC-10A & BC-10B			
CC-1A thru CC-9A; CC-1B thru CC-9B; BC-11A & BC-11B	SEE BELOW – The dust emissions from the cascading conveyors are also controlled by DE-1 through DE-4 and DE-6 & DE-7.		
Silos 1A thru 1G	DE-1 & DE-2 (Cascade Enclosure - 135 feet elevation)	SIEMENS and PR-1, SR-1 & EX-1	Exit opening is inside building facing up. Opening: 3 feet by 3 feet

<b>Silos 2A thru 2G</b>	DE-3 & DE-4 (Cascade Enclosure - 135 feet elevation)	SIEMENS and PR-2, SR-2 & EX-2	Exit opening is inside building facing up. Opening: 3 feet by 3 feet
<b>Silos 3A thru 3G</b>	DE-6 & DE-7 (Cascade Enclosure - 135 feet elevation)	SIEMENS and PR-3, SR-3 & EX-3	Exit opening is inside building facing up. Opening: 3 feet by 3 feet

**Monitor:** Weekly visible emission observations will be recorded for each control device listed above that is operating. If visible emissions are observed, opacity readings will be conducted in accordance with EPA Method 9.

#### 4.4 Fly Ash Handling

SRP's responsibilities extend to all aspects of flyash handling and storage although some activities are managed by a third party contractor:

**Fly Ash Non-point Sources:** The activities in Table 5.0 are managed by a third party contractor and one or more of the following control measures are implemented to minimize dust emissions from these potential sources.

**TABLE 5.0 Control Measure Guidelines:**

<b>Source:</b>	<b>Material Handling and Roadway Control Measure(s)</b>
<b>Material Handling:</b> <b>Silo 1 Loading</b> (open bed haul truck loading operations)	<ol style="list-style-type: none"> <li>1. Drop height reduction</li> <li>2. Moisture retention, apply as needed</li> <li>3. Wind sheltering, loading chute</li> </ol>
<b>Silo 2 Loading</b> (open bed haul truck loading operations)	<ol style="list-style-type: none"> <li>1. Drop height reduction</li> <li>2. Moisture retention, apply as needed</li> <li>3. Wind sheltering, loading chute</li> </ol>
<b>Paved Roads:</b> <b>Traffic Activity</b>	<ol style="list-style-type: none"> <li>1. Limit Traffic</li> <li>2. Sweeping of roads</li> <li>3. Water Flushing of roads</li> </ol>
<b>Carryout</b>	<ol style="list-style-type: none"> <li>1. Clean vehicles before entering roadway</li> <li>2. Pave access road near site exit</li> <li>3. Rapid cleanup after event</li> </ol>
<b>Spillage</b>	<ol style="list-style-type: none"> <li>1. Reducing overloaded trucks</li> <li>2. Wetting materials being hauled</li> </ol>
<b>Unpaved Roads:</b> <b>Traffic Activity</b>	<ol style="list-style-type: none"> <li>1. Water Suppression</li> <li>2. Chemical stabilization</li> <li>3. Speed reduction</li> <li>4. Limit traffic</li> <li>5. Gravel surface</li> </ol>

**Monitor:** Verify control measures weekly.

**Flyash Point Sources:** The potential sources listed in Table 6.0 are managed by SRP and utilize particulate control devices to control emissions.

**TABLE 6.0 Emission Control Devices:**

<b>Unit ID / Stack ID:</b>	<b>Control Device</b>	<b>Make / Size</b>	<b>Stack Details</b>
<b>Silo 1</b> (storage activity)	DC-S1/2 (baghouse on top of Silo 1)	Scientific Dust Collectors	EX Fan facing south on west end of baghouse. Opening: 2.5 feet by 4 feet
<b>Silo 2</b> (storage activity)	DC-S3 (baghouse on top of Silo 2)	Scientific Dust Collectors	EX Fan facing south on west end of baghouse. Opening: 2.5 feet by 4 feet
<b>Silo 1 Loading</b> (enclosed fly ash trucks loading)	DC-TD (baghouse is located at NW corner of Silo 1 at 35 feet elevation)	Upper portion is Micro Air (red) Lower portion is Torit Downflo (blue)	Facing skyward on east side of baghouse. Opening: 1 foot by 2 feet
<b>Silo 2 Loading</b> (enclosed fly ash trucks loading)	DC-S3 (baghouse on top Silo 2)	Scientific Dust Collectors	EX Fan facing south on west end of baghouse. Opening: 2.5 feet by 4 feet

**Monitor:** Weekly visible emission observations will be recorded for each control device listed above that is operating. If visible emissions are observed, opacity readings will be conducted in accordance with EPA Method 9.

#### **4.5 Limestone Handling**

All Limestone Non-Point and Point sources are managed in accordance with the NGS Title V Operating Permit, Section II.D. NSPS, Subpart OOO requirements.

##### **Limestone Handling Non-point Sources:**

**Table 7.0 Control Measure Guidelines:**

<b>Source:</b>	<b>Control Measure(s)</b>
<b>Material Handling:</b> <b>Unloading Bay A and B</b> (truck unloading operations)	Not Applicable - Truck dumping of non-metallic minerals into any screening operation, feed hopper, or crusher is exempt per 40 CFR 60.672(d)
<b>LS – Limestone Storage Pile</b>	Water suppression

**Monitor:** Weekly observations will be recorded.



Limestone Handling Point Sources: The potential sources listed in Table 8.0 utilize particulate control devices to control emissions.

**Table 8.0 Control Devices:**

<b>Unit ID / Stack ID:</b>	<b>Control Device</b>	<b>Make / Size</b>	<b>Stack Details</b>
<b>O-LSH-HOP-A</b>	<b>DC-9</b> (Baghouse on SW corner of Limestone Handling)	Mac Equipment Company, Serial number 95-FMCF361 Filter, 12X12X38.1 feet tall, 22,000 pounds and a design capacity of 18,000 ACFM.	Facing skyward. Opening: 34 inch diameter pipe
<b>O-LSH-FDR-A</b>			
<b>O-LSH-CNV-A</b>			
<b>O-LSH-HOP-B</b>	<b>DC-10</b> (Baghouse on NE corner of Limestone Handling)	Mac Equipment Company, Serial number 96-MCF361 Filter, 12X12X38.1 feet tall, 22,000 pounds and a design capacity of 18,000 ACFM.	Facing skyward. Opening: 34 inch diameter pipe
<b>O-LSH-FDR-B</b>			
<b>O-LSH-CNV-B</b>			
<b>O-LSH-SILO-A&amp;B</b>	<b>DC-11</b> (Baghouse on W side of Limestone Prep Building)	Mac Equipment Company, Serial number 95-FMCF-07-007, Model number 96-MCF255 Filter, 10X10X32.2 feet tall, 9,200 pounds and a design capacity of 12,681 ACFM.	Facing skyward. Opening: 30 inch diameter pipe

Monitor: Weekly observations will be recorded.

Opacity limitations are as follows:

- No greater than 15% from any crusher without a capture system.
- No greater than 10% from any transfer point without a capture system.
- No greater than 7% from any stack emissions or building vent enclosing any transfer point.
- No emissions from any building enclosing any transfer point except from a vent.
- Truck dumping of nonmetallic minerals into any screening operations, feed hopper or crusher is exempt per 40 CFR 60.672(d).

## **5.0 INSPECTIONS**

The effectiveness of control measures will be evaluated using regular inspections and documentation of visible emissions, as applicable. Dust control devices will be operated and maintained with opacity emission limits specified in the Federal Implementation Plan - 40 CFR Part 49 §49.24(e)(8).

Inspections shall be performed weekly by trained and certified Method 9 observers. For non-point sources the inspectors shall document active control measures that are being used to minimize dust emissions. In the case of point sources, the observers shall perform visible emission observations. If visible emissions are observed, opacity readings will be conducted in accordance with EPA Method 9.

See Section 9 – Weekly Inspection Forms

## **6.0 RECORD KEEPING AND REPORTING**

SRP will maintain records of weekly inspection records, Method 9 certification training, and Method 9 observations.

SRP will make reports as necessary in accordance with the Federal Implementation Plan - 40 CFR Part 49 §49.24(f).

For excess emissions, SRP will notify the Navajo Environmental Protection Agency Director and the U.S. Environmental Protection Agency Regional Administrator by telephone or in writing within one business day.

The notifications will be sent to the Director, Navajo Environmental Protection Agency, by mail to: P.O. Box 339, Window Rock, Arizona 86515, or by facsimile to: (928) 871-7996 (facsimile), and to the Regional Administrator, U.S. Environmental Protection Agency Region 9, by mail to the attention of Mail Code: AIR-5, at 75 Hawthorne Street, San Francisco, California 94105, by facsimile to: (415) 947-3579 (facsimile), or by e-mail to: [r9.aeo@epa.gov](mailto:r9.aeo@epa.gov).

A complete written report of the incident shall be submitted to the Regional Administrator within ten (10) working days after the event. This notification shall include the following information:

- (i) The identity of the stack and/or other emissions points where excess emissions occurred;
- (ii) The magnitude of the excess emissions expressed in the units of the applicable emissions limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
- (iii) The time and duration or expected duration of the excess emissions;
- (iv) The identity of the equipment causing the excess emissions;
- (v) The nature and cause of such excess emissions;
- (vi) If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction; and
- (vii) The steps that were taken or are being taken to limit excess emissions.

## **7.0 ROADWAY EQUIPMENT**

### **2 – Water Truck**

Owner: HRI	Make: Komatsu, Model Mega, 13,000 gallon capacity
SRP RENTAL	Make: International, Model 4300, 4,000 gallon capacity

### **1 – Water Pull**

Owner: SRP	Make: Caterpillar, Model 621-G, 8,000 gallon capacity
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### **2 – Ride-On Sweeper**

Owner: SRP	Make: Tennet, Model 355-G, 14 cubic feet hopper volume
Owner: SRP	Make: Tennet, Model 830, 3.4 cubic yard hopper volume

### **1 – Vacuum Truck**

Owner: SRP	Make: International, Supersucker Model 5227, 15 cubic yard capacity
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## **8.0 TRAINING**

At least two (2) on-site personnel will obtain EPA Method 9 certifications and receiving training regarding weekly inspections and provisions of this plan. A copy of the NGS FIP Dust Control Plan will be made available to plant personnel and the third party contractor responsible for handling coal combustion residues and limestone deliveries.

## **9.0 ATTACHMENTS**

### **9.1 Facility Map**

### **9.2 Weekly Inspection Forms**

### **9.3 Visible Emissions Form**

## **Facility Map**



PLANT NORTH



- EXISTING EQUIPMENT
- NEW EQUIPMENT
- FUTURE CONSTRUCTION
- WATER UTILITIES

ACH404

SCALE: 1" = 300' - 0"

### SITE PLAN

03275-EY-0-SIP-001-4

UPDATED HAZARDOUS WASTE  
REGULATION PART 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

COMPLETED PERMITS AND ALLOWS  
FOR THE CONSTRUCTION OF THE  
NEW 100,000 GPM WATER TOWER  
AND 100,000 GPM WASTE WATER  
TOWER. THE CONTRACT NO. 03275-  
EY-0-SIP-001-4 IS THE BASIS FOR  
THESE PERMITS AND ALLOWS.

ISSUED FOR PHASE 1  
SUBSTRUCTURES

ISSUED FOR PHASE 1  
PILE PREPARATION

ISSUED FOR PHASE 1  
PILE PREPARATION

ISSUED FOR PHASE 1  
PILE PREPARATION

ISSUED FOR PHASE 1  
PILE PREPARATION

03275-EY-0-SIP-001-4

## **Weekly Inspection Forms**

## WEEKLY INSPECTION FORMS

NGS FIP WEEKLY OBSERVATIONS – 20% OPACITY LIMIT					
<b>Certified Observer (Circle)</b>	Walter Begay	Jon Adams	LD Shakespear	<b>Date:</b>	
<b>Signature:</b>					
SRP/NGS					
Non-Point Sources (Coal Handling and Storage)					
MATERIAL HANDLING AND STORAGE CONTROL MEASURES					
Source (Unit ID)	Control Measure(s) Implemented (Circle)			Comments:	
<b>Material Handling: (CT1)</b> Railroad car unloading operations	1. Shelter from wind - enclosure 2. Reduce drop height – minimum hopper level maintained 3. Water spraying, as applicable				
<b>(L1-L12)</b> Twelve hopper feeders	1. Shelter from wind - enclosure 2. Watering – apply as needed 3. Chemical stabilization				
<b>(BC-1)</b> Belt Conveyor	1. Shelter from wind - enclosure 2. Water spraying, as applicable 3. Chemical stabilization				
<b>(BC-2)</b>	1. Shelter from wind - enclosure 2. Maintain moisture				
<b>(BC-3)</b>	1. Shelter from wind - enclosure 2. Maintain moisture				
<b>(BC-4)</b>	1. Shelter from wind - enclosure 2. Maintain moisture				
<b>(BC-4A)</b>	1. Shelter from wind - enclosure 2. Maintain moisture				
<b>(BFD-5A) Belt Feeder Deck</b>	1. Shelter from wind - enclosure 2. Maintain moisture				
<b>(BC-5)</b>	1. Shelter from wind - enclosure 2. Maintain moisture				
<b>(BC-6A)</b> 1 of 3 stacker / reclaimer reversible conveyers	1. Shelter from wind - enclosure 2. Water spraying, as applicable 3. Chemical stabilization				
<b>(BC-6B)</b> 2 of 3 stacker conveyor only	1. Shelter from wind - enclosure 2. Maintain moisture				
<b>(BC-6C)</b> 3 of 3 stacker / reclaimer reversible conveyers	1. Shelter from wind - enclosure				

**SRP/NGS**

**Non-Point Sources (Coal Handling and Storage)  
MATERIAL HANDLING AND STORAGE CONTROL MEASURES**

Source (Unit ID)	Control Measure(s) Implemented (Circle)	Comments:
(BC-6)	1. Shelter from wind - enclosure 2. Water spraying, as applicable 3. Chemical stabilization	
(BC-7) One conveyor to the emergency reclaim hopper	1. Shelter from wind - enclosure 2. Water spraying, as applicable 3. Chemical stabilization	
Wind Erosion: (CS) Outdoor coal storage piles	1. Maintain moisture 2. Water spraying, as applicable 3. Chemical stabilization	

**Point Sources (Coal Handling and Storage)  
PARTICULATE CONTROL DEVICES**

Source (Unit ID)	Control Device	Is Control Device Operating? (Check one)		Is there VE? (Check one)		Was EPA Method 09 conducted? (Check one)	
		YES	NO	YES	NO	YES*	NO**
YSB-1	DC-8						
BC-8A & BC-8B							
PSB-1	DE-5						
BC-9A & BC-9B							
BC-10A & BC-10B							
CC-6A/6B & Silos 1A thru 1C (coal silos)	DE-1						
CC-4A/4B, CC-5A/5B & Silos 1D thru 1G (coal silos)	DE-2						
Cascade Enclosure	PR-1 SR-1 EX-1						

\* Note: Complete one Method 9 VE Observation Form for each control device if visible emissions are observed.

\*\*Note: Method 9 VE Observation Form was not completed due to: Wind Direction / Sun Position / Other.  
Explain:



**SRP/NGS**

**Point Sources (Coal Handling and Storage - Continued)  
PARTICULATE CONTROL DEVICES**

Source (Unit ID)	Control Device	Is Control Device Operating? (Check one)		Is there VE? (Check one)		Was EPA Method 09 conducted? (Check one)	
		YES	NO	YES	NO	YES*	NO**
CC-3A/3B, CC-11A/11B & Silos 2A thru 1C (coal silos)	DE-3						
CC-1A/1B, CC-2A/2B & Silos 2D thru 1G (coal silos)	DE-4						
Cascade Enclosure	PR-2 SR-2 EX-2						
CC-7A/7B, CC-8A/8B & Silos 3A thru 1D (coal silos)	DE-6						
CC-9A/9B & Silos 3E thru 1G (coal silos)	DE-7						
Cascade Enclosure	PR-3 SR-3 EX-3						

**Point Sources (Fly Ash Handling and Storage)  
PARTICULATE CONTROL DEVICES**

Source (Unit ID)	Control Device	Is Control Device Operating? (Check one)		Is there VE? (Check one)		Was EPA Method 09 conducted? (Check one)	
		YES	NO	YES	NO	YES*	NO**
Silo 1 (ash silo storage)	DC-S1/2						
Silo 2 (ash silo storage)	DC-S3						

\* **Note:** Complete one Method 9 VE Observation Form for each control device if visible emissions are observed.

**\*\*Note:** Method 9 VE Observation Form was not completed due to: Wind Direction / Sun Position / Other.  
Explain:

**SRP/NGS**

**Point Sources (Fly Ash Handling and Storage)  
PARTICULATE CONTROL DEVICES**

Source	Control Device	Is Control Device Operating?		Is there VE?		Was EPA Method 09 conducted?	
		(Check one) YES	(Check one) NO	(Check one) YES	(Check one) NO	(Check one) YES*	(Check one) NO**
Silo 1 Loading (1 of 2 loading; enclosed trailer loadout)	DC-TD						
Silo 2 Loading (1 of 2 loading; enclosed trailer loadout)	DC-S3						

\* Note: Complete one Method 9 VE Observation Form for each control device if visible emissions are observed.

\*\*Note: Method 9 VE Observation Form was not completed due to: Wind Direction / Sun Position / Other.  
Explain:

**Non-Point Sources (Fly Ash Handling and Storage)  
MATERIAL HANDLING AND ROADWAY CONTROL MEASURES**

Source	Control Measure(s) Implemented (Circle)	Comments:
Material Handling: Silo 1 Loading (2 of 2 loading; open bed haul truck loading operations)	1. Drop height reduction 2. Moisture retention, apply as needed 3. Wind sheltering, loading chute	
Silo 2 Loading (2 of 2 loading; open bed haul truck loading operations)	1. Drop height reduction 2. Moisture retention, apply as needed 3. Wind sheltering, loading chute	
Paved Roads: Traffic Activity	1. Limit Traffic 2. Sweeping of roads 3. Water Flushing of roads	
Carryout	1. Clean vehicles before entering roadway 2. Pave access road near site exit 3. Rapid cleanup after event	
Spillage	1. Reducing overloaded trucks 2. Wetting materials being hauled	
Unpaved Roads: Traffic Activity	1. Water suppression 2. Chemical stabilization 3. Speed reduction 4. Limit traffic 5. Gravel surface	

SRP/NGS								
Non-Point Sources								
PAVED ROADWAY CONTROL MEASURES								
Source	Control Measure(s) Implemented (Circle)				Comments:			
Paved Roads: Traffic Activity	1. Water Spraying of Roads 2. Reduce Speed 3. Limit Traffic 4. Sweeping of roads							
Carryout	1. Clean vehicles before entering roadway 2. Pave access road near site exit 3. Rapid cleanup after event							
Non-Point Sources								
UNPAVED ROADWAY CONTROL MEASURES								
Source	Control Measure(s) Implemented (Circle)				Comments:			
Unpaved Roads: Traffic Activity	1. Watering 2. Chemical stabilization 3. Speed reduction 4. Limit traffic 5. Gravel surface							
NGS LIMESTONE WEEKLY OBSERVATIONS – 0, 7, 10% OPACITY LIMITS								
Point Sources (Limestone Handling and Storage)								
PARTICULATE CONTROL DEVICES								
Source (Unit ID)	Control Device (LIMIT)	Is Control Device Operating?		Is there VE?		Was EPA Method 09 conducted?		
		(Check one) YES	(Check one) NO	(Check one) YES	(Check one) NO	(Check one) YES*	(Check one) NO**	
O-LSH-HOP-A O-LSH-FDR-A O-LSH-CNV-A	DC-9 (7% Opacity Limit)							
O-LSH-HOP-B O-LSH-FDR-B O-LSH-CNV-B	DC-10 (7% Opacity Limit)							
O-LSH-SILO-A&B	DC-11 (7% Opacity Limit)							
* Note: Complete one Method 9 VE Observation Form for each control device if visible emissions are observed.								
**Note: Method 9 VE Observation Form was not completed due to: Wind Direction / Sun Position / Other. Explain:								
Non-Point Sources (Limestone Handling and Storage)								
MATERIAL HANDLING AND STORAGE MEASURES								
Source	CIRCLE Control Measures Implemented (LIMIT)				Comments:			
O-LSP-FDR-A&B, O-LSP-CNV-A&B	1. Enclosure (FROM BLDG 0% Opacity Limit, FROM BLDG VENT 7% and 10% WITHOUT CAPTURE SYSTEM)							
Limestone Storage Pile (LS)	1. Watering							

## **Visible Emissions Form**

**VISIBLE EMISSION OBSERVATION FORM**  
**NAVAJO GENERATING STATION - SRP**

Observation Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ End Time: \_\_\_\_\_

Process Equipment:	LIMIT	Process Control Device* (circle):
Limestone Handling System Title V Condition: II.D.5.ii & II.D.6	7%	DC9 DC10 DC11 or Bldg. Vent
Coal Material Handling FIP Dust Control Plan Table 2.0	20%	DE1 DE2 DE3 DE4 DE5 DE6 DE7 DC8
Fly Ash Handling / Storage FIP Dust Control Plan Table 3.0	20%	DCS1/2 DCS3
Enclosed Trailer Loading FIP Dust Control Plan Table 7.0	20%	DCTD DCS3

Plume Color: \_\_\_\_\_ Plume Background: \_\_\_\_\_ Sky: \_\_\_\_\_

Wind Speed (mph): \_\_\_\_\_ Wind Direction (N-E-S-W): \_\_\_\_\_ Temperature (°F): \_\_\_\_\_

Stack Ht. - above 0 elev. (feet): \_\_\_\_\_ Stack Distance and Ht. in relation to Observer (feet): \_\_\_\_\_

**SKETCH (symbols)- INDICATE BY DRAWING:**

1. NORTH ARROW (→), True North is 22° east of Plant North
2. STACK POSITION (Δ) in relation to OBSERVER (X)
3. SUN POSITION (S) in relation to Observer Facing Stack



**Recording Observations.** Opacity observations shall be recorded to the nearest 5 percent at 15-second intervals on an observational record sheet. A minimum of 24 observations shall be recorded. Each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period. **Data Reduction.** Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals. Divide the observations recorded on the record sheet into sets of 24 consecutive observations. A set is composed of any 24 consecutive observations. Sets need not be consecutive in time and in no case shall two sets overlap. For each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24. Record the average opacity on a record sheet.

Minute	0 second	15 sec	30 sec	45 sec	Comments
1					
2					
3					
4					
5					
6					
Sum of opacity readings / 24 observations =					Average opacity**
1					
2					
3					
4					
5					
6					
Sum of opacity readings / 24 observations =					Average opacity**

\*Note: Complete one sheet for one control device with emissions.

\*\* Note: If Average Opacity is greater than LIMIT contact Paul Ostapuk and Operations IMMEDIATELY!

Observer: \_\_\_\_\_

Date: \_\_\_\_\_